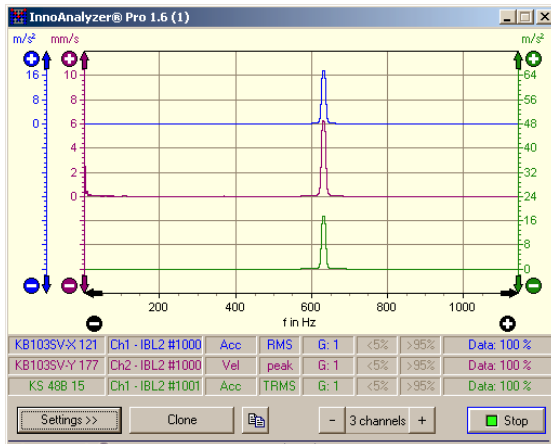
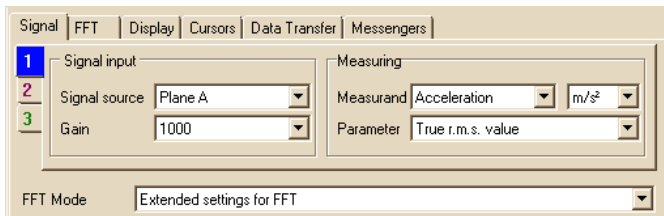




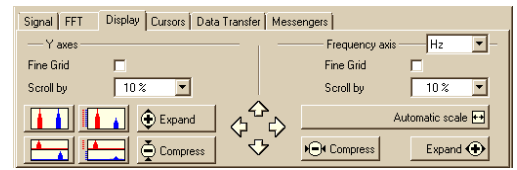
InnoAnalyzer Vibration Analyzers



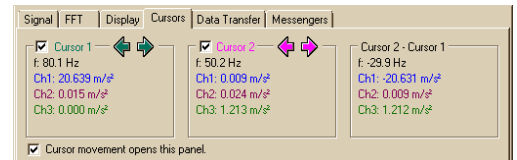
Collapsed settings.



Signal settings



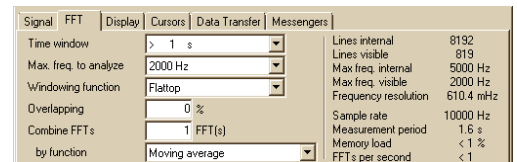
Display settings



Cursor settings



Messenger settings



FFT settings

Application

For the frequency analysis of vibrations, the InnoAnalyzers are used. Rotating parts in drives, gears, pumps, fans and many other technical products cause perturbing vibrations. Often numerous parts with different rotation speed cause mechanical vibrations so that a superposition of frequencies is generated.

InnoAnalyzers decompose this superposition into the different frequency components again by Fourier-transformation. So you can detect the parts which are primarily responsible for the vibrations. As a consequence, mechanical malfunctions are precisely and quickly tracked down in development, quality control or service. The success of actions to reduce vibrations, e.g. balancing with the InnoBalancer, is proven measurably.

Properties

The InnoAnalyzers are universal vibration analyzers for vibration acceleration respectively vibration velocity and displacement (Pro version).

The InnoAnalyzers offer two modes. In the automatic mode, you just define the required frequency range and select optimization for either magnitude or frequency – that's all. On the other hand, many more parameters are available for experienced users so that they can configure the analysis according to their specific demands.

A highlight is the high number of lines of more than ½ million FFT lines and the frequency resolution of up to 0.01 Hz. Switching the frequency axis from Hz to 1/min simplifies the allocation to rotating parts.

Two differently colored cursors with value display support you during the analysis. The export of the curves into other applications as graphic or as pairs of X/Y values in text format is easily possible.

Frequency analyses can be carried out continuously as well as in response to a triggered time signal. In this case the InnoAnalyzer is working together with the InnoScope.

During unattended operation, analyses can be saved periodically or be sent via e-mail.

Specification

Model	InnoAnalyzer Pro	InnoAnalyzer
Signal processing		
Measurands Y-axis	AC voltage Vibration acceleration Vibration velocity Vibration displacement	AC voltage Vibration acceleration
Units Y-axis	V, mV, μ V, nV, pV m/s^2 , mm/s^2 , $\mu m/s^2$, nm/s^2 , pm/s^2 , g, mg, μ g, dB m/s , mm/s , $\mu m/s$, nm/s , pm/s , in/s, dB m, mm, μ m, nm, pm, in, dB	V, mV, μ V, nV, pV m/s^2 , mm/s^2 , $\mu m/s^2$, nm/s^2 , pm/s^2 , g, mg, μ g, dB
Parameters Y-axis	Peak value, true rms, phase	
Variables X-axis	Frequency / rotation speed	
Units X-axis	Hz / min^{-1}	
Frequency range	Freely adjustable 0 ... 40000 Hz **	
Frequency resolution	<0.01 Hz	
Windowing	Rectangle, Bartlett, Blackman, Hamming, Hann, Flattop	
Overlapping	0 ... 99 %	
Combining FFTs	Peak value from start (peakhold) or moving, average value from start or moving	
Number of lines	2 ... 524288	
Graphical presentation		
Number of graphs	1 ... 4 per window	
Refresh	1 ... 16 times per second *	
Interval Y-axis (amplitude)	0.1 ... 10000	
Interval Y-axis (phase)	0 ... 360°, -180° ... +180°	
Interval X-axis (frequency)	10 ... 40000 Hz **	
Interval X-axis (rotation speed)	600 ... 2400000 min^{-1} **	
Indicators	Sensor, measuring channel, measurand, parameter, gain, underload, overload, data fill level	
Recommen. screen resolution	from 800 x 600 pixels	
Cursors		
Presentation	2 lines, freely adjustable by mouse or button	
Numeric cursor data	For each cursor as well as for difference cursor 2 - cursor 1	
Numeric cursor refresh	1 ... 4 times per second *	
Data export		
Control	Manually or periodically triggered	
Formats	Bitmap , PNG, Enhanced Meta File (EMF), Text	
Destinations	In clipboard or file	
Event messaging		
Message on e-mail	At trigger sending of exported measured data	
Miscellaneous		
Amplitude list	1 ... 20 amplitudes (search sensitivity adjustable), sorting by value or frequency	
As set available	VMSset-03 ... 07	--
General functions	Hold function, cloneable	

* Centrally managed in InnoMaster

** Usage with InnoBeamer L2: upper frequency limit 2000 Hz = 120000 min^{-1}

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.